(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 2 June 2005 (02.06.2005)

PCT

(10) International Publication Number WO 2005/049996 A1

(51) International Patent Classification⁷:

F02D 41/24

(21) International Application Number:

PCT/US2004/038217

(22) International Filing Date:

17 November 2004 (17.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/520,651

18 November 2003 (18.11.2003) US

- (71) Applicant (for all designated States except US): MACK TRUCKS, INC. [US/US]; 2402 Lehigh Parkway South, PO Box 1907, Allentown, Pennsylvania 18105-1907 (US).
- (72) Inventor; and
- Inventor/Applicant (for US only): HOLLENBECK, Bruce Phelps [US/US]; 2804 Post Road, Orefield, Pennsylvania 18069 (US).
- (74) Agents: REPPER, George, R. et al.; Rothwell, Figg, Ernst & Manbeck, P.C., 1425 K Street, N.W., Suite 800, Washington, District of Columbia 20005 (US).

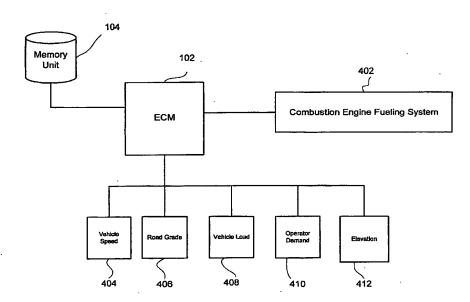
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: CONTROL SYSTEM AND METHOD FOR IMPROVING FUEL ECONOMY



(57) Abstract: A control system is provided for controlling the fueling system (402) of a combustion engine. The control system includes a sensing arrangement for measuring a plurality of engine and vehicle conditions (404, 406, 408, 410, 412) in real time. The control system also includes a fuel map that defines engine fueling parameters corresponding to engine operating conditions. The control system also includes a control module (102) for controlling the fueling parameters of the fueling system by selecting fueling parameters from the fuel map based on current engine operating conditions and adjusting the selected fueling parameters based on the plurality of engine and vehicle conditions measured by the sensing arrangement.



WO 2005/049996 A1



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.